



Launch Mission Execution Forecast

Mission: Falcon 9 CRS-25

Issued: 12 July 2022 / 0800L (1200Z)

Valid: 14 July 2022 / 2039-2049L (15/0039-0049Z)



Forecast Discussion: The active pattern with afternoon storms and southwest flow will remain in place for the next few days as the subtropical ridge axis remains to our south. By Thursday, the ridge axis will migrate northward and shifting low level winds south/southeasterly. This will allow the east coast seabreeze to migrate inland by the afternoon and evening hours, triggering the bulk of the diurnal thunderstorms farther to our west. While an isolated shower cannot be ruled out, most of the activity is expected to remain inland during the evening hours. With upper level winds coming from the east/northeast, this will also help keep any anvil clouds associated with the storms to the west. Thus, the primary concerns are the Cumulus Cloud Rule and Flight Through Precipitation.

On Friday and Saturday, the overall setup generally looks similar to Thursday, but moisture and instability will increase as an upper level feature moves in from the southeast. The POV is slightly higher and main concerns remain the same as on Thursday.

Launch Day	Probability of Violating Weather Constraints ¹					
	30%	Primary Concerns: Cumulus Cloud Rule, Flight Through Precipitation				
	Weather Conditions				Additional Risk Criteria ²	
	Weather/Visibility: Isold Showers / 7 mi.	Type	Coverage	Base (ft)	Tops (ft)	Upper-Level Wind Shear: Low
24-Hour Delay	Temp/Humidity: 81°F / 85%	Cumulus	Scattered	3,000	10,000	Booster Recovery Weather: Low
	Liftoff Winds (200'): 150° 12 - 17 mph	Cirrostratus	Scattered	28,000	32,000	Solar Activity: Low
48-Hour Delay	Probability of Violating Weather Constraints					
	40%	Primary Concerns: Cumulus Cloud Rule, Flight Through Precipitation				
	Weather Conditions				Additional Risk Criteria	
	Weather/Visibility: Sct Showers / 7 mi.	Type	Coverage	Base (ft)	Tops (ft)	Upper-Level Wind Shear: Low
Notes	Temp/Humidity: 81°F / 80%	Cumulus	Scattered	3,000	12,000	Booster Recovery Weather: Low
	Liftoff Winds (200'): 130° 12 - 17 mph	Cirrostratus	Scattered	27,000	32,000	Solar Activity: Low
Notes	Probability of Violating Weather Constraints					
	40%	Primary Concerns: Cumulus Cloud Rule, Flight Through Precipitation				
	Weather Conditions				Additional Risk Criteria	
	Weather/Visibility: Sct Showers / 7 mi.	Type	Coverage	Base (ft)	Tops (ft)	Upper-Level Wind Shear: Low
Notes	Temp/Humidity: 80°F / 82%	Cumulus	Scattered	3,000	15,000	Booster Recovery Weather: Low
	Liftoff Winds (200'): 130° 12 - 17 mph	Cirrostratus	Broken	26,000	32,000	Solar Activity: Low
	1. The Probability of Violation (PoV) is the chance of a local safety or customer constraint violation occurring anytime during the launch window.					
	2. Additional Risk Criteria, which are not included in the PoV, are mission-specific constraints that may not include all phenomena within each risk factor.					
	See https://www.patrick.spaceforce.mil/Portals/14/Weather/LaunchFAQ.pdf for more information					
Next Forecast Will Be Issued		13 July 2022				